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| 10/004,209 | 11/01/2001 | Charles C. Huse | NLM.P005 | 5816 |

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EXAMINER

TRIMMINGS, JOHN P

ART UNIT PAPER NUMBER

2133

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

This Office Action is in response to the applicant's Amendment and Declaration under CFR 1.131 dated 10/22/2004.

Claim 27 was cancelled by the applicant.

Claims 35-38 were amended by the applicant.

Claims 1-26 and 28-43 are pending.

SPECIAL NOTE

In a telephone Interview on 3/1/2005, the applicant representative and the examiner discussed an earlier Final Action written by the examiner dated 2/7/2005. In the interview (which is entered into the record on 3/9/2005), the applicant and examiner agreed that the examiner would withdraw the said Final Action, and that the applicant need not respond to said Final Action.

The examiner hereby withdraws the Final Action dated 2/7/2004.

The following is an Office Action in replacement of the said Final Action of 2/7/2005.

Response to Amendment

1. In view of the applicant's changes to FIG.11 of the Drawings, and to the Specification, the examiner withdraws the objections to said Drawings and Specification, and approves said changes.
2. In view of the Declaration of Prior Invention filed on 10/22/2004, the examiner

withdraws the rejections of Claims 1-26 and 28-43. However, upon further consideration, a new ground(s) of rejection is made in view of Baumann (see below).

Claim Rejections - 35 USC § 102

3. Claims 11, 15, 18, 29, 32 and 43 rejected under 35 U.S.C. 102(e) as being anticipated by Baumann, U.S. Patent No. 6732227.

As per Claim 11:

Bumann teaches a content addressable memory (CAM) device (FIG.5), comprising: a counter (FIG.5 503); and CAM array having a plurality of rows of CAM cells (FIG.5 508) coupled to the counter (through Address Reg. 504) to receive a counter value as a search key for the CAM array (column 6 lines 8-19).

As per Claim 15:

Bumann teaches a content addressable memory (CAM) device (FIG.5), comprising: a counter (FIG.5 503); a CAM array having a plurality of rows of CAM cells (FIG.5 508) coupled to the counter to receive a counter value (through Address Reg. 504) for storage in at least one of the rows of the CAM cells (column 6 lines 8-19); and address logic coupled to the counter and the CAM array to select at least one of the rows of CAM cells in the CAM array in response to the counter value (FIG.5 504, 508).

As per Claim 18:

Bumann teaches a content addressable memory (CAM) device (FIG.5), comprising: a CAM array that includes a plurality of rows of CAM cells (FIG.5 508) each coupled to a match line (FIG.8 MA-MD); means for determining an index that indicates a

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location in the CAM array of one of the rows of CAM cells (FIG.5 512); means for generating an address of one of the rows of CAM cells in the CAM array (FIG.5 503 and ADV#); and means for determining that the address matches the index (FIG.8 801, 802).

As per Claim 32:

Bumann teaches a method for operating a content addressable memory (CAM) device (FIG.5), comprising: comparing a search key with data stored in a plurality of rows of CAM cells (column 6 lines 64-67 and column 7 lines 1-4); generating an index of a location in the plurality of rows of CAM cells that indicates a match with the search key (FIG.5 INDEX(18:0); and comparing the index with a first counter value from a counter (FIG.5 BURST ADDR through 504 ADDR REG through DECODER 506).

As per Claims 29 and 43:

Bumann teaches a method and computer-readable medium having stored thereon sequence of instructions, the sequences of instructions including instructions which, when executed by a processor, causes the processor to perform the step of: systematically identifying locations in a CAM array of the CAM device that store data that match search keys (column 6 lines 64-67 and column 7 lines 1-4); and synchronizing a counter within the CAM device (FIG.5 503 ADV#) with the identifying such that the identifications of the locations match counter values of the counter when the CAM device is operating properly (FIG.8 match results and column 7 lines 26-63).

Allowable Subject Matter

4. Claims 1-10, 19-26 and 28 are allowed.

As per Claims 1, 19 and 25:

The following is an examiner's statement of reasons for allowance: The reference art of Baumann teaches a content addressable memory including CAM cells, match lines, priority encoder, and a counter. However, the prior art of record taken alone, or in combination failed to teach, anticipate, suggest, or render obvious the claimed invention of the application. Specifically, as per example in Claim 1, the prior arts failed to teach, anticipate, suggest, or render obvious the limitation introduced into these claims, namely: compare logic coupled to the counter and the priority encoder to compare the index and counter values. Consequently, Claims 2-10, 20-26 and 26 and 28 are dependent directly or indirectly upon Claims 1, 19 and 25, and are therefore also allowed. In total, Claims 1-10, 19-26 and 28 are allowed.

5. Claims 12-14, 16, 17, 30, 31 and 33-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P Trimmings whose telephone number is (571) 272-3830. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

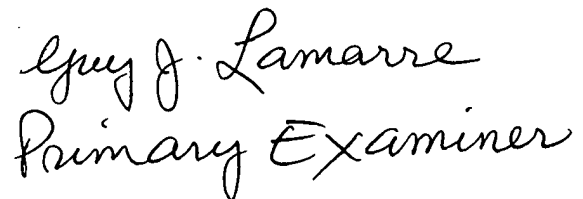
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John P Trimmings
Examiner
Art Unit 2133

jpt



Primary Examiner

Approved 3/21/05 gpt

AMENDMENTS TO THE DRAWING

Please amend Figure 11 by changing the arrow labeled "DBUS" from a left-hand arrow to a right-hand arrow. A Marked-Up Drawing Sheet illustrating the requested amendment to Figure 11 in red ink is enclosed herewith. A Replacement Drawing Sheet incorporating the requested amendment to Figure 11 is also enclosed.



Replacement Drawing (Sheet 1 of 1)

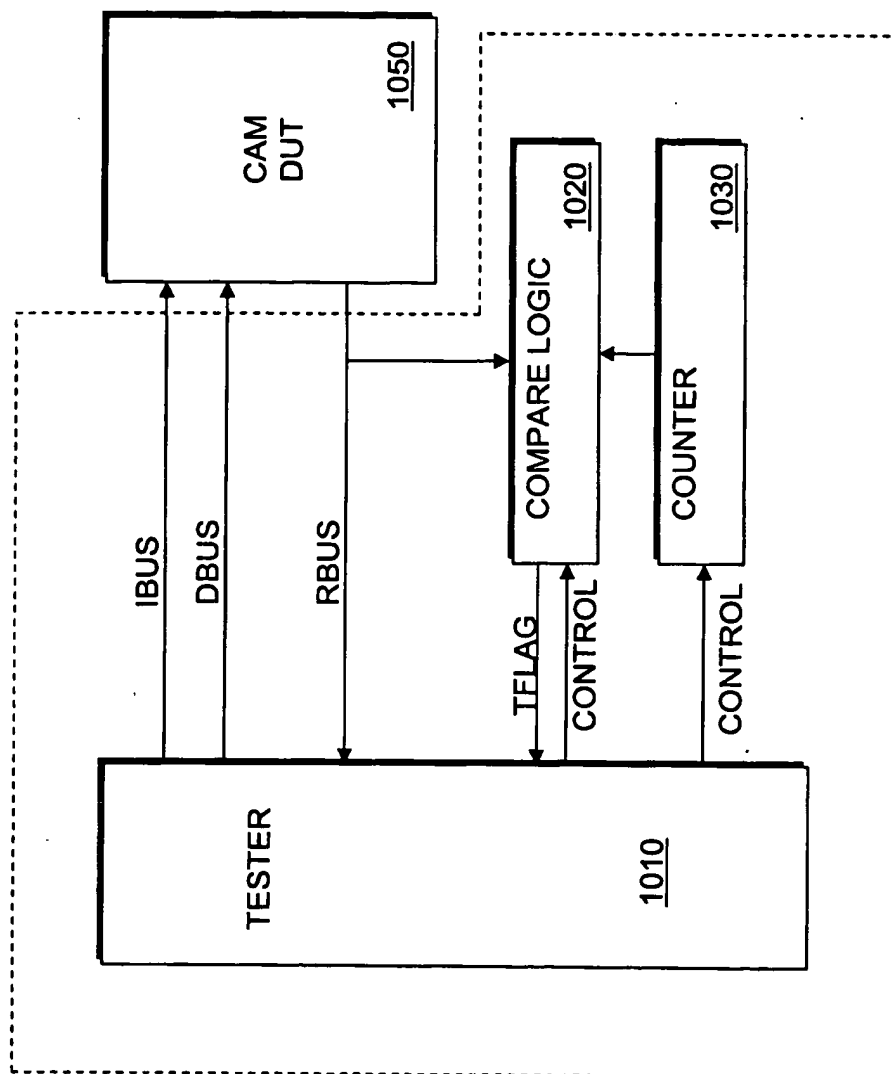


FIG. 11